

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently amended) ~~A telephone power source circuit for an internet protocol (IP) telephone connected to a network, in which a direct current with a signal is received via the network for charging an input capacitor to thereby obtain operation voltage of each constituent components of the IP telephone, comprising:~~
 - ~~a direct current to direct current (DC/DC) converter for obtaining a voltage to charge the input capacitor, and~~
 - ~~an input current limiting register connected to an input terminal of said DC/DC converter for limiting the direct current inputted from the network.~~

An internet protocol (IP) telephone, comprising:

 - an input connector for receiving from a network a signal containing a digital component and a current component;
 - a separator for separating said current component from said digital component;
 - telephone circuitry for providing audio input and output;
 - a central processing unit (CPU) for controlling said IP telephone; and
 - a power source circuit for receiving said current component from said separator, said power source circuit comprising:
 - an input current limiting resistor for limiting said current component;
 - a direct-current to direct-current (DC/DC) converter that is connected to said input current limiting resistor; and
 - an input capacitor that is charged by said current component.

2. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 1, said power source circuit further comprising an input voltage sensor circuit for monitoring an input voltage to said DC/DC converter, an output from said DC/DC converter being delayed according to a result of the monitoring by said input voltage sensor circuit.
3. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 1, wherein said input capacitor has a capacity of about 100 μ F.
4. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 2, wherein said input capacitor has a capacity of about 100 μ F.
5. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 1, said power source circuit further comprising limit removing means for removing the limitation imposed by said input current limiting resistor.
6. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 2, said power source circuit further comprising limit removing means for removing the limitation imposed by said input current limiting resistor.
7. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 3, said power source circuit further comprising limit removing means for removing the limitation imposed by said input current limiting resistor.
8. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 4, said power source circuit further comprising limit removing means for removing the limitation imposed by said input current limiting resistor.
9. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 5, wherein said limit removing means is a switching transistor connected in parallel with said input current limiting resistor.

10. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 6, wherein said limit removing means is a switching transistor connected in parallel with said input current limiting resistor.

11. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 7, wherein said limit removing means is a switching transistor connected in parallel with said input current limiting resistor.

12. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 8, wherein said limit removing means is a switching transistor connected in parallel with said input current limiting resistor.

13. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 9, wherein said switching transistor is driven by a driving transistor, said driving transistor operating according to a voltage received via a delay circuit from said DC/DC converter.

14. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 10, wherein said switching transistor is driven by a driving transistor, said driving transistor operating according to a voltage received via a delay circuit from said DC/DC converter.

15. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 11, wherein said switching transistor is driven by a driving transistor, said driving transistor operating according to a voltage received via a delay circuit from said DC/DC converter.

16. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 12, wherein said switching transistor is driven by a driving transistor, said driving transistor operating according to a voltage received via a delay circuit from said DC/DC converter.

17. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 9, wherein said ~~telephone includes a central processing unit (CPU)~~, said CPU ~~determining~~ determines control timing for turning said switching transistor on or off.

18. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 10, wherein said ~~telephone includes a central processing unit (CPU)~~, said CPU ~~determining~~ determines control timing for turning said switching transistor on or off.

19. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 11, wherein said ~~telephone includes a central processing unit (CPU)~~, said CPU ~~determining~~ determines control timing for turning said switching transistor on or off.

20. (Currently amended) ~~A telephone power source circuit~~ The IP telephone in accordance with claim 12, wherein said ~~telephone includes a central processing unit (CPU)~~, said CPU ~~determining~~ determines control timing for turning said switching transistor on or off.

21. (New) The IP telephone in accordance with claim 1, wherein said input capacitor is charged by said current component through said input current limiting resistor upon power-up of said IP telephone.